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((TRANSLATION OR TRANSLATING) SAME PHYSICAL SAME (L2 OR L3)).USPT,PGPB,JPAB,EPAB,DWPI,TDBD.	17

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L4

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Set Name Query

side by side

DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ

- L4 (translation or translating) same physical same (l2 or l3)
- L3 object adj2 cache
- L2 object adj2 table
- L1 (map or mapping or translate or translating) same (object adj2 address) same physical

Hit Count Set Name
result set

- 17 L4
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L1: Entry 2 of 41

File: PGPB

Feb 20, 2003

DOCUMENT-IDENTIFIER: US 20030037211 A1

TITLE: Data backup method and system using snapshot and virtual tape

Detail Description Paragraph (101):

[0139] Under a preferred embodiment, splitter 700 operates on I/O streams at a physical address level, and host 760 is responsible for implementing functionality at a logical level. Under this arrangement, splitter 700 is configured by host 760 to take certain actions when I/O streams fall within prescribed, physical address domains (e.g., physical volumes, tracks, sectors, and physical blocks). This specification of a physical address domain and associated actions to be performed is a "session definition." Host 760 is a separate computing entity (akin to a file server) that is programmed to understand a logical level of addressing abstraction (e.g., databases, file systems, logical records). It includes logic (discussed more fully below) to map logical-level objects to a corresponding physical address domain.



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L1: Entry 4 of 41

File: PGPB

Jan 2, 2003

DOCUMENT-IDENTIFIER: US 20030004972 A1

TITLE: Method and apparatus for implementing a reliable open file system

Detail Description Paragraph (15):

[0032] Under a preferred embodiment, the splitter 200 operates on IO streams at a physical address level, and the host 260 is responsible for implementing functionality at a logical level. Under this arrangement, the splitter 200 is configured by the host 260 to take certain actions when IO streams fall within prescribed, physical address domains (e.g., physical volumes, tracks, sectors, and physical blocks). This specification of a physical address domain and associated actions to be performed is a "session definition." The host 260 is a separate computing entity (akin to a file server) that is programmed to understand a logical level of addressing abstraction (e.g., databases, file systems, logical records). It includes logic (discussed more fully below) to map logical-level objects to a corresponding physical address domain.

Detail Description Paragraph (24):

[0041] The file system mappers 333 include logic to map logical objects into their corresponding physical addresses. These physical addresses may then be used in the construction of session definitions and service requests. In one embodiment, the file system mappers cooperate with agents on other systems. For example an agent may execute on a file server 280 operating under another operating system (e.g., LINUX, NT, Solaris) and this other file server may be effectively merged into the system using the host 260. For example, the file mapper may cooperate with such agents to request physical and logical level information from such file servers (i.e., metadata) or to perform other operating system functions on the host behalf (e.g., open a file on the server). The host may use metadata to implement logical level functions and operations in conjunction with a splitter, e.g., mirroring on a logical level.

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L1: Entry 8 of 41

File: PGPB

Jun 27, 2002

DOCUMENT-IDENTIFIER: US 20020083166 A1

TITLE: Method and apparatus for managing local resources at service nodes in an intelligent network

Detail Description Paragraph (51):

[0096] As shown in FIGS. 8(b)-10, the NGIN NOS functional sub-components include: 1) a Name Translation ("NT") process 570 that resolves logical names for data and service objects to physical addresses that identifies both the computer (as a network address) and the memory address in which the requested object is running; 2) Local Resource Management ("LRM") processes 575, 577 that tracks and maintains the status of resources at a service node; 3) a global Network Resource Status ("NRS") process 590 that maintains the status of all service node resources throughout the entire NGIN network; and, to provide inter-process communications, 4) a set of services for providing object connectivity, such as that provided by a Common Object Request Broker Architecture compliant ORB, such as provided by Orbix.RTM., developed by IONA Technologies of Cambridge, MA, and Dublin, Ireland, or like equivalent, which enables communications among objects across different computing platforms, API message sets, and Internet Protocol (IP) communications, particularly by mapping logical names of objects to physical addresses in a manner such as to meet or exceed certain real-time call processing performance requirements.



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L4: Entry 12 of 17

File: USPT

Dec 4, 2001

DOCUMENT-IDENTIFIER: US 6327646 B1

TITLE: Translation look-aside buffer utilizing high-order bits for fast access

Brief Summary Text (12):

Entries in an TLB and entries in a cache directory are indexed (or pointed to) by various subsets of a linear address. To describe this in more detail, it is useful to partition $A.sub.L$ as $A.sub.L = [A".sub.L \ A'.sub.L]$ where $A".sub.L$ points to a unique entry in the TLB and $A'.sub.L$ points to a unique entry in a cache directory. Provided there is an TLB hit, the TLB provides a translation of $A".sub.L$ to the physical address space, and the cache directory entry pointed to by $A'.sub.L$ provides the physical address of its associated cache way entry. If the cache way entry is valid, and if the physical address translation provided by the TLB matches the physical address provided by the cache directory entry, then there is a cache hit and the desired object is retrieved from the cache way. If the comparison between the physical addresses fails, then there is a cache miss and another part of the memory hierarchy (not shown) may need to be accessed. If there is an TLB miss, then the memory hierarchy is accessed to provide the proper page directory and page table entries.

Brief Summary Text (16):

A cache hit can now be summarized as follows. For some linear address $A.sub.L = [A".sub.L \ A'.sub.L]$, the tags in the TLB are compared with $[A.sub.L].sub.n = [A.sub.L".sub.L].sub.n$. If there is a hit, and if the entry associated with the matched tag is valid, then the TLB entry provides the physical translation of $[A.sub.L].sub.n$, which when appended to those bits of $A".sub.L$ not in $[A".sub.L].sub.n$ provides $A".sub.p$, where $A.sub.L.rarw.fwdarw.[A".sub.p \ A'.sub.L]$. Tags in the cache directories are compared with $A'.sub.L$. If there is a hit for a tag, and the entry associated with the tag is valid, then the entry in the cache directory provides $B".sub.p$ where $B.sub.p = [B".sub.p \ A'.sub.L]$ is the physical address of the object stored in the corresponding cache way entry. (Entries in the directories also comprise other information concerning lines in the ways, e.g., whether the line is dirty, valid, shared with other caches, etc.) If $B".sub.p$ matches $A".sub.p$, then $A.sub.L.rarw.fwdarw.B.sub.p$ and there is a cache hit. If $B".sub.p$ fails to match $A".sub.p$, then there is a cache miss.